202206UECM1404OE2a

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Review of preview

Started on	Friday, 15 July 2022, 05:53 PM
Completed on	Friday, 15 July 2022, 05:53 PM
Time taken	13 secs
Grade	**0** out of a maximum of 10 (**0**%)

1
Marks: 1

Allan deposits 180 at the end of each year for 20 years into a fund earning an annual effeective interest rate of 8%.
Becky makes 20 deposits into a fund at the end of each year for 20 years. The first 10 deposits are 180 each, while the last 10 deposits are 180 + Y each. The fund earns an annual effeective interest rate of 9% during the first 10 years and 7% annual effeective interest thereafter.
At the end of 20 years, the amouont in Allan's fund equals the amount in Becky's fund.
Calculate Y. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 26.820955
Marks for this submission: 0/1.

2
Marks: 1

Steven have a 30-year 190,000 mortgage with an 9% interest rate convertibele monthly. Payments are made at the end of the month. Immediate after the 120th payment, he refinance the mortgage. The interest rate is reduced to 7.5%, convertibele monthly, and the term is reduced to 20 years (so there are 10 years of payments remainning). He also make an additional payment of 25,333 at the time of refinancing. Calculate his new monthly payment. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 1716.227923
Marks for this submission: 0/1.

3
Marks: 1

Tom borrows 600 at an annual effective interest rate of 6% and agrees to repay it with 30 annual installments. the amount of each payment in the last 20 years is set at twice that in the first 10 years.
At the end of 10 years. Tom has the the option to repay the entire loan with a final payment X, in addition to the regular payment. This will yield the lender an annual effective rate of 6.5% over the 10-year period.
Calculate X. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 724.853425
Marks for this submission: 0/1.

4
Marks: 1

Kelvin wish to accumulate 71,000 in a fund at the end of 30 years. She plans to deposit 59 into the fund at the end of of each of the first 144 months. He then plans to deposit 59 + k into the fund at the end of each of the last 216 months.
Assume the fund earns interest at an annual effective rate 4.31%. Determine k. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 87.590756
Marks for this submission: 0/1.

5
Marks: 1

The death benefit on a life insurance policy can be paid in any of the following ways, each of which has the same present value as the death benefit:

- a perpetuity of 100 at the end of each month;
- 142.40 at the end of each month for n years; and
- a payment of 53058.73 at the end of n years.

Calculate the amount of the death benefit. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 15797.78831
Marks for this submission: 0/1.

6
Marks: 1

A perpetuity paying 1 at the beginning of each 6-month period has a present value of 790. A second perpetuity pays R at the beginning of every 4 years. Assuming the same annual effective interest rate, the two present values are equal. Determine R. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 7.964647
Marks for this submission: 0/1.

7
Marks: 1

Kenton borrows 160,000 on January 1, 2021 to be repaid in 12 annual installments at an effective annual rate of interest of 12%. The first payment is due on January 1, 2022. Instead of annual payment he decides to make monthly payments equal to one-twelfth the annual payment beginning on February 1, 2022. Dertermine how many months will be needed to pay off the loan. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 129.381291
Marks for this submission: 0/1.

8
Marks: 1

At a nominal rate of interest i, convertible semiannually, the present value of a series of payment of 1 at the end of every 2 years, forever, is 6.57. Calculate i. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 0.072109
Marks for this submission: 0/1.

9
Marks: 1

An annuity pays 7 at the end of each year for 20 years.
Another annuity pays 7.5 at the end of each year for 10 years.
At an effective annual interest rate of i, $0 < i < 1$, the present values of both annuities are equal. calculate i. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 0.302005
Marks for this submission: 0/1.

10
Marks: 1

You took a loan of 200,000 which required to pay 40 equal annual payments at 11% interest. The payments are due at the end of each year. The bank sold your loan to an investor immediately after receiving your 8th payment. With yield to the investor of 6%, the price the investor pay was 314,690. Determine the bank's overall return on its investment. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 0.153
Marks for this submission: 0/1.